



# Physical Properties of Tricel Honeycomb

The physical properties of Tricel Honeycomb have been engineered from private sources, and our own research. Please call for more details.

Core Designation	Shear Strength in PSI (ASTM C273)		Shear Modulus in PSI (ASTM C273)		Shear Elongation in % (ASTM C393 SB)		Maximum Facing Stress in PSI (ASTM C393 SB)		Maximum Core Shear Stress in PSI (ASTM C393 SB)		EI Per 1" Width in #/IN <sup>2</sup> (ASTM C393 SB)		Maximum Facing Stress in PSI (ASTM C393 LB)		Maximum Core Shear Stress in PSI (ASTM C393 LB)		EI Per 1" Width in #/IN <sup>2</sup> (ASTM C393 LB)		Stiffness "D" in #/IN <sup>2</sup> (ASTM C393 LB)		Compression in PSI (ASTM C365)		Density #/FT <sup>3</sup> (ASTM C271)
	L	T	L	T	L	T	L	T	L	T	L	T	L	T	L	T	L	T	L	T	Strength	Modulus	
1/2 - 60 - 60 - 15%	41.3	18.2	3,984	1,666	2.34	3.57	434	237	37.2	20.1	2.96E+04	1.78E+04	6,355	3,309	38.4	18.5	1.07E+05	7.18E+05	356,477	192,261	36.0	1,415	1.61
3/8 - 60 - 60 - 15%	68.2	25.8	6,940	1,878	1.79	2.72	735	289	63.8	24.9	4.92E+04	1.97E+04	9,011	4,727	48.3	23.5	1.14E+05	7.23E+05	379,270	260,608	53.0	2,110	2.42
1/4 - 60 - 60 - 15%	110.1	37.1	9,243	2,089	2.03	2.80	1,184	423	102.3	36.6	7.27E+04	2.52E+04	14,465	6,221	78.4	30.2	1.19E+05	7.68E+05	376,986	299,345	94.8	2,814	2.95
1/2 - 60 - 60 - 0%	*Unimpregnated grades are not recommended for Structural applications. Longitudinal and Transverse Shear Values are not furnished.																				9.5	488	1.31
1/2 - 80 - 80 - 0%																					16.5	704	1.61
3/8 - 50 - 50 - 0%																					16.9	667	1.75
3/8 - 60 - 60 - 0%																					23.3	1,047	2.04
3/8 - 80 - 80 - 0%																					31.7	1,362	2.33
1/4 - 50 - 50 - 0%																					27.3	1,051	2.42
1/4 - 60 - 60 - 0%																					34.2	1,292	2.66
<p>**All Values are the strengths of the core 1" thickness based upon extensive laboratory testing per ASTM Standards. A Safety factor appropriate for given design should be applied to the shear strength and compressive strength data. A safety factor of 4 to 1 is recommended for most structural applications.</p> <p>↑ % of Phenolic Resin Content</p> <p>↑ Paper Grade of Fluted Member</p> <p>↑ Paper Grade of Liner Member</p> <p>↑ Cell Size (Amplitude of Sine Wave)</p>																							